

ABSTRACT OF THE DISCLOSURE**EFFICIENT PACKET DESEGMENTATION ON A NETWORK ADAPTER**

5 A method, system, and program for efficient packet desegmentation on a network adapter are provided. Multiple data packet segments received at a network adapter from a single connection are buffered at the network adapter. The single connection is identified by addresses and ports extracted from the header of each data packet segment. Responsive to detecting a buffering release condition, the data packet segments are released from the network adapter as a

10 desegmented group to a network stack, such that the data packets segments received for the single connection are efficiently passed to the network stack together. In particular, the single connection is a TCP connection identified by a four-tuple of source and destination addresses and ports extracted from each TCP header of each of said plurality of data packet segments.